IN THE CLAIMS

1. (Canceled)~~A molecular structure of the recognition site of an anti-idiotypic antibody against an apoptotically active site of human alpha-fetoprotein localized at the amino acid residues 251-259 of said protein, or at the amino acid residues 246-254 of human serum albumin.~~

2. (Currently amended) A peptide structure ~~of the active site of human alpha-fetoprotein or albumin according to Claim 1~~ with a general formula of CCR/HGDV/LLD/E_nX_mY~~, or CCHGDLLE$_n$X$_m$Y~~, in which formula X is any hydrophobic amino acid and Y is any hydrophilic amino acid, and the index n is 1, 2 or 3 and index m is 1, 2 or 3, said peptide structure having a capability to regulate apoptotic cell death.

3. (Currently amended) The~~A linear~~ peptide structure of Claims~~1 or~~ 2 further having 0, 1, 2 or 3 flanking cysteine residues at the N-terminus and 0, 1, 2, or 3 flanking cysteine residues at the C-terminus of the peptide.

4. (Currently amended) The ~~A polymerized or cyclized~~ peptide structure of Claim 3, wherein the peptide structure is further selected from a group consisting of linear and cyclic.

5. (Currently amended) The~~A~~ peptide structure according to Claims 2~~1-4~~ ~~characterized by~~, wherein the peptide further consists of ~~a simultaneous presence of~~ sequences RGD and DXXD ~~in the same molecule~~, and wherein X means any hydrophobic amino acid residue and R,G and D mean Arg, Gly and Asp, respectively.

6. (Currently amended) The~~A hexa~~peptide structure according to Claim 5, wherein D of sequence RGD is common with the sequence DXXD.

7. (Currently amended) The p~~P~~eptide structure~~sequences~~ according to Claim 2, wherein X in the general formulae means V, L or W, Xm may contain any combination of V, L and W, ~~or any of their combinations~~, and Y means D,E, or G.

8. (Currently amended) The ~~Linear, polymerized, or cyclized~~ peptide structure according to claim 3, wherein the peptide structure is further defined as ~~of~~ C*C*R/HGDV/LLD/EC*, and ~~wherein~~ the asterisk residues denote to places of possible disulfide bonds.

9. (Canceled)

10. (Currently amended) ~~The use of peptides of Claims 2-9~~A ~~for~~method for suppressing ~~of the~~ apoptotic regulatory pathways in human and animal cells by treating the cells with peptide structures according to claim 2 for an appropriate period of time.

11. (Currently amended) A ~~The~~ use of the peptide structures of Claim s 2~~-9~~ for increasing preservation of organs or cells within their transplantation.

12. (Currently amended) A ~~The~~ use of the peptides structures of Claims 2~~-9~~ for prevention~~ng~~ of autoimmune disorders and an immunodeficiency syndrome induced by a viral infection.

13. (Currently amended) A~~The~~ use of the peptides structures ~~-~~of Claims 2~~-9~~ for lowering cytotoxic effects after chemo- or radiotherapy.

14. (Currently amended) A~~The~~ use of the peptides structures of Claims 2~~-9~~ for inhibition neuronal cell apoptosis, non-specific drug-induced apoptosis, or oxidative stress –mediated apoptosis.

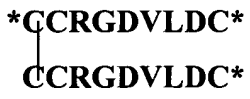
15. (Currently amended) The method according to claim 10, wherein the cells are ~~use of peptides of Claims 2-9 for preventing apoptosis of~~ cultured ~~cells prepared~~ for scientific or technical purposes.

16. (Currently amended) The~~Any~~ molecular structure according to Claim2~~1~~, wherein the structure has~~characterized by its~~ an ability to bind into an antibody prepared against the molecular recognition site of a Gab-fragment or said anti-idiotypic antibody.

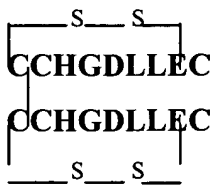
17. (New) The peptide structure of Claim 4, wherein the peptide is polymerized.

18. (New) The peptide structure of Claim 17, wherein the peptide structure is cyclic dimer.

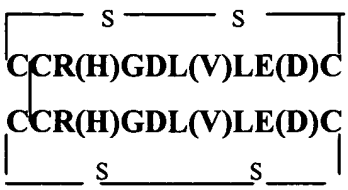
19. (New) The peptide structure of Claim 18, wherein the structure is:



20 (New) the peptide structure of claim 18 wherein the structure is :



21(New) The peptide structure of claim 18, wherein the structure is:



Yours truly,

/John Dodds/Leea Susanne Somersalo

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Cc: file

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